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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/513,706 | 02/25/2000 | Paul F. Lodrige | SUN1P398/P4612 | 7285 |

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EXAMINER

TRUONG, LECHI

ART UNIT PAPER NUMBER

2126

DATE MAILED: 11/25/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/513,706

Applicant(s)

LODRIGE ET AL.

Examiner

LeChi Truong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 25 February 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being depending from its self.

For the purpose of the rejection claim 16 is assumed to claim 11.

Claim Rejections - 35 USC § 103

1. Claims 1-7,9-11,14-15, 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admit prior Art (APA) (page 1-3) in view of Obermarck et al (US. 4,847,754).

As to claim 1, APA teaches a first message, second message (instances messages, page 3, ln 9-10), a first thread, a second thread (two or more threads, page 3, ln 9-11), the two software modules (a stream module, page 3, ln 9-13), a first processor, a second processor (different processors, page 3, ln 9-11).

APA does not teach determining, allowing a second thread ... propagated. However, Obermarck teaches (test RSV to determine whether another process has gained concurrent use of resource, col 3, ln 58-68, col 4, ln 10-50) for concurrent propagation of data between software modules.

It would have been obvious to apply the teaching of Obermarck to APA in order to provide simultaneous access to shared resources among concurrently executing processes.

As to claim 2, APA teaches respective portions of first a second message (instances messages, page 3, ln 9-11).

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APA does teach concurrently propagate for more or two processor. However, Obermarck teaches another process has gained concurrent use of the resource (col 4, col 4, ln 27-50) for concurrent propagation of data between software modules.

It would have been obvious to apply the teaching of Obermarck to APA in order to provide simultaneous access to shared resources among concurrently executing processes.

As to claim 3, APA teaches the second thread (one single thread, page 3, ln 15-23), the first message, second message (messages, page 3, ln 15-23), two software modules (the STREAMS model, page 3, ln 15-23), the first thread (all the threads, page 3, ln 15-23), two layer software modules (the STREAMS model, page 3, ln 15-23).

As to claim 4, APA teaches a lock (queue lock, page 3, ln 15-23).

As to claim 5, APA does not teach first indicator for the first processor, indicate ...first processor, the first processor is not propagating. However, Obermarck teaches excess, message buffer capacity /credit (col 5, ln 23-56) for concurrent propagation of data between software modules/RSV (col 4, ln 26-50).

It would have been obvious to apply the teaching of Obermarck to APA in order to provide simultaneous access to shared resources among concurrently executing processes.

As to claim 6, APA does not explicit teach determining an event, being processed, pending to be processed, determining a thread-count. However, Obermarck teaches the condition (col 1, ln 38-46), test RSV to determine whether another process has gained concurrently use of the resource, col 3, ln 15-23), locks, unlocks (col 1, ln 40-61), an indication of credit (col 5, ln 23-68), the apply counter (APPCNTR) (col 6, ln 19-20, ln 41-44) for concurrent propagation of data between software modules.

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It would have been obvious to apply the teaching of Obermarck to APA in order to provide simultaneous access to shared resources among concurrently executing processes.

As to claim 7, APA teaches a synchronization queue ("synchronization queue", page 2, ln1/ 116, Fig 1), the software modules (module1, 104, Fig 1), one or more message (messages, page 2, ln 1-3), determining (in some situation message cannot be placed in queue 112 and 114..., page 2, ln 25-30, page 3, ln 1-9).

As to claim 9, APA teaches the first message (messages, page 2, ln 25-30), a queue (queues 112 and 114, page 2, ln 25-30). The synchronization queue does not contain one or more messages when messages still can be placed in a queue. (page 2, ln 25-30).

As to claim 10, APA teaches the two software modules (stream modules 104 and 106, page 2, ln 1-4), a stack as STREAM modulers (a STREAMS, page 2, ln 1-16).

As to claim 11, APA teaches first and second software modules (the stream modules 104 and 106, page 2, ln 17-24), main queue (a down-queue 112, page 2, ln 17-24), messages (messages (data), page 2, ln 17-24), an auxiliary queue (synchronization queue 116, page 3, ln 1-2), processors (two or more threads (or processes, page 3, ln 9-11).

APA does not teach a propagation controller operating to enable at least two processors... to concurrently. However, Obermarck teaches the provision of access to shares resources among concurrently –executing processes, col 3, ln 58-60/ to providing simultaneous access to linked list, col 3, ln 30-34)/ to determine whether another process has gained concurrent use of the resource (col 4, ln 10-50) for concurrent propagation of data between software modules.

It would have been obvious to apply the teaching of Obermarck to APA in order to provide simultaneous access to shared resources among concurrently executing processes.

As to claim 14, APA teaches the first software (module 1, fig 1), the second software (module 2, Fig 1), the auxiliary queue (120, Fig 1), a message (messages, page 2, ln 25-30), two processors of said plurality of processors (two or more threads (or processes) running on different processors, page 3, ln 10-15.

APA does not teach processors concurrently propagate a message. However, Obermarck teaches another process has gained concurrent use of the resource (col 4, ln 27-50) for concurrent propagation of data between software modules.

It would have been obvious to apply the teaching of Obermarck to APA in order to provide simultaneous access to shared resources among concurrently executing processes.

As to claim 15, teaches the first software (module 1, fig 1), the second software (module 2, Fig 1), the main queue (a pair of queues, page 2, ln 17-20), a message (messages, page 2, ln 25-30), two processors of said plurality of processors (two or more threads (or processes) running on different processors, page 3, ln 10-15.

APA does not teach processors concurrently propagate a message. However, Obermarck teaches another process has gained concurrent use of the resource (col 4, ln 27-50) for concurrent propagation of data between software modules.

It would have been obvious to apply the teaching of Obermarck to APA in order to provide simultaneous access to shared resources among concurrently executing processes.

As to a computer system of claim 16, see the rejection of claim 10.

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As to a computer readable media of claim 17, refer to the rejection of claim 1. Further APA teaches computer program code (an application, page 2, ln 11-12).

As to a computer readable media of claim 18, see the rejection of claim 2.

As to a computer readable media of claim 19, see the rejection of claim 5.

As to a computer readable media of claim 20, see the rejection of claim 10.

2. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over APA in view of Obermack et al (US. 4,847,754) and further in view of Logan et al (US Pat 5,404,562).

As to claim 8, APA teaches propagating the first message, a message (message are stored, page 2, ln 29-30).

APA does not teach propagating ...at the bottom, propagating a message from the head. However, Logan teaches add data to the queue at either end; the programs can remove data form either end (col1, ln 44-51) for concurrent propagation of data between software modules.

It would have been obvious to apply the teaching of Obermarck to APA in order to perform the synchronization for sending one message or set of data from one program to another at any time.

3. Claims 12, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admit prior Art (APA) in view of Obermarck et al (US. 4,847,754) and further in view of Heller et al (US. patent 5,404,562).

As to claim 12, APA does not teach a thread-count. However, Obermarck teaches the apply counter (APPCNTR) (col 6, ln 19-20, ln 41-44) for concurrent propagation of data between software modules.

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It would have been obvious to apply the teaching of Obermarck to APA in order to provide simultaneous access to shared resources among concurrently executing processes.

APA does not teach a queue count. However, Heller teaches a counter 1907 (col 18, ln 48-49) for concurrent propagation of data between software modules.

It would have been obvious to apply the teaching of Obermarck to APA in order to count the number of coherence control requests and to store a value which control request to shared data.

As to claim 13, APA teaches the synchroization queue ("synchronization queue", page 2, ln1/ 116 , Fig 1).

APA does not teach a queue count. However, Heller teaches a counter 1907 (col 18, ln 48-49) for concurrent propagation of data between software modules.

It would have been obvious to apply the teaching of Obermarck to APA in order to count the number of coherence control requests and to store a value which control request to shared data.

Conclusion

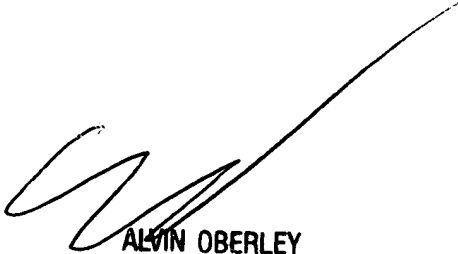
Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (703) 305 5312. The examiner can normally be reached on 8 - 5PM.

Fax phone: AFTER_FINAL faxes must be signed and sent to: (703) 746-2738, OFFICAL faxes must be signed and send to: (703) 746-7239, NON OFFICIAL faxes should not be signed, please send to: (703) 746-7240

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305 9000.

LeChi Truong
November 4, 2002



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